In the Specification

Please substitute the pending paragraph beginning on page 16, line 27 and ending on page 17, line 4 with the following amended paragraph:

A second input resistor 515 (R_{I2}) is similarly coupled between a second input port 503 of the operational amplifier 502 and a second input port 509 of the current conditioning circuit 246, which is coupled to a second terminal 157 of the current transformer 158 by way of the system current input 225. A burden resistor 159 (R_B) is coupled between the two terminals 155,157 of the current transformer to provide a return path for current between terminals 155,157. An output port 507 of the operational amplifier 502 is provided to the analog-to-digital converter 248. The output port 507 is coupled to an output port 519 of the current conditioning circuit 246.

Please also substitute the pending paragraph beginning on page 17, line 25 and ending on page 18, line 13 with the following amended paragraph:

The current conditioning circuit 246 amplifies the input signal from the current transformer 158 as a conventional differential amplifier. Thus, when the adjustment resistor 508 is not coupled between the first input port 501 and the output port 507 due to the switching element 506 being turned off, the voltage gain experienced between the input port 512 and the output port 519 of the current conditioning circuit 246 is proportional to the ratio of the resistance of the feedback resistor 504 to the resistance of the input resistor 505 (e.g., R_{F1}/R_I). However, when the adjustment resistor 508 is coupled in parallel with the feedback resistor 504 because

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the switching element 506 is turned on, the gain of the differential amplifier is proportional to the ratio of the parallel combination of the resistances of the feedback resistor and the adjustment resistor to the resistance of the input resistor 505 $\{R_{A1}R_{F1}/[(R_{A1}+R_{F1})R_I]\}$. Thus, by turning on the switching element 506, the gain of the differential amplifier can be reduced. Further, by appropriately choosing the ratio of R_{A1} to R_{F1}, the gain of the differential amplifier can be reduced by a factor of 10 when the switching element 506 is turned on, in particular.

Please substitute the pending paragraph at page 19, lines 3-20 with the following amended paragraph:

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Without the second feedback and adjustment resistors 514,518 and the second switching element 516, the voltage output at port 519 would tend to zero volts for a zero volt differential applied between ports 512 and 509; however, with the second feedback and adjustment resistors and the second switching element the voltage output is biased to 2.5 Volts. By including the second feedback and adjustment resistors 514,518 and second switching element 516, therefore, the output of the differential amplifier is biased to a point above the noise level, and the analog-to-digital converter 248 can be provided power by way of a single positive power supply, instead of requiring both positive and negative power supplies (to handle positive and negative outputs from the differential amplifier. Use of pairs of feedback, adjustment, and input resistors having the same values allows for balanced operation of the differential amplifier.